

Patent claims

1. An axial-flow thermal turbomachine, having a rotor (1) made from a metallic material with a first density (D₁), in which rotor blades (3, 3') and intermediate pieces (4) are mounted alternately in a circumferential groove, characterized in that said intermediate pieces (4) consist of a material with a second density (D₂), which is lower than the first density (D₁).
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2. The turbomachine as claimed in claim 1, characterized in that the material having the second density (D₂) is an intermetallic compound.
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3. The turbomachine as claimed in claim 2, characterized in that the intermetallic compound is a γ -titanium aluminide alloy or an orthorhombic titanium aluminide alloy.
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4. The turbomachine as claimed in claim 3, characterized in that the γ -titanium aluminide alloy has the following chemical composition (details in % by weight): Ti-(30.5-31.5)Al-(8.9-9.5)W-(0.3-0.4)Si.
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5. The turbomachine as claimed in claim 1, characterized in that the material having the second density (D₂) is a titanium alloy.
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6. The turbomachine as claimed in one of claims 1 to 5, characterized in that the turbomachine is a high-pressure compressor of a gas turbine having a rotor (1) which substantially comprises a stainless Cr-Ni steel.